



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

W

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/627,478 | 07/24/2003 | George H. Lerg | TRAPTEC-13 | 4216 |
| 27189 | 7590 | 12/28/2004 | EXAMINER | |
| PROCOPIO, CORY, HARGREAVES & SAVITCH LLP 530 B STREET SUITE 2100 SAN DIEGO, CA 92101 | | | LEE, BENJAMIN C | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2632 | |

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/627,478

Applicant(s)

LERG ET AL.

Examiner

Benjamin C. Lee

Art Unit

2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-72 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-72 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/24/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 53 and 68-69 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Regarding claim 53, line 2, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

b) In claims 68 & 69, line 1, "said one or more **sonic** sensors" lacks antecedent basis.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

Art Unit: 2632

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 4, 7, 14, 18, 20, 24, 30-31, 33, 35, 38, 40, 42, 46, 54-55, 57, 61-63, 65 and 71-72 are rejected under 35 U.S.C. 102(e) as being anticipated by Nesbitt (US pat. #6,150,927).

1) Regarding claims 1 and 4, Nesbitt discloses a method of detecting a graffiti-making act (surface-defacing and vandalizing in the form of scratching made on a hard surface according to Abstract; col. 1, line 9 and col. 6, lines 38-59, when done in certain shapes/designs/patterns, constitutes graffiti-making act), comprising: sonically detecting the graffiti-making act (Abstract; col. 3, lines 39-42 and col. 5, lines 14-21 whereby direct vibration detection is “preferred” but nevertheless teaches sonic-through-the-air detection as one embodiment, and element 16 of Fig.6); initiating an alarm (51) indicating that the graffiti-making act took place (col. 4, lines 43-65); wherein sonically detecting the graffiti-making act includes sonically detecting the sound made by scratching an abrasive instrument (col. 6, lines 45-46) on a surface.

2) Regarding claim 7, Nesbitt met all of the claimed subject matter as in claim 1, including:

--the claimed wherein sonically detecting the graffiti-making act includes detecting the sound spectrum pattern of the graffiti-making act (col. 5, lines 1-13).

3) Regarding claim 14, Nesbitt met all of the claimed subject matter as in claim 1, including:

--the claimed wherein the alarm is a member from the group consisting of a bell, a light, a horn, a speaker, a marking means, a camera to record the activity, a camera to monitor the

Art Unit: 2632

activity, a photo process, a phone device, a wireless communication device, a cage, a trap, and a disabling means (col. 5, line 22 to col. 6, line 25).

4) Regarding claims 18 & 20, Nesbitt met all of the claimed subject matter as in the consideration of claims 1 & 7.

5) Regarding claim 24, Nesbitt met all of the claimed subject matter as in claim 20, plus the consideration of claim 4.

6) Regarding claims 30-31, 33 and 35, Nesbitt met all of the claimed subject matter as in claim 18, including:

a) (claim 30) the claimed wherein communicating to one or more entities includes communicating to a police dispatcher (base computer 60 according to col. 6, lines 12-15);

b) (claim 31) the claimed wherein communicating to one or more entities includes communicating to one or more police officers on patrol in a general area of the graffiti-making act (portable receivers or pagers 73 according to col. 6, lines 13-19);

c) (claim 33) the claimed wherein communicating to one or more entities includes communicating to a security system center (60 according to col. 5, line 53 to col. 6, line 24);

d) (claim 35) the claimed wherein communicating to one or more entities includes communicating one or more of the following: a graffiti-marking act has been detected, the location of the graffiti-making act, the type of graffiti-making act, the time the graffiti-marking act took place (col. 5, lines 47-51 and col. 6, lines 19-24).

7) Regarding claim 38, Nesbitt met all of the claimed subject matter as in claim 18, since the broadest interpretation of claim 38 requires only "one sensor" for detecting "one graffiti-making act".

8) Regarding claim 40, Nesbitt met all of the claimed subject matter as in the consideration of claim 18, including:

--the claimed base unit (50) including electronics adapted to process the signal and determine whether the signal represents a graffiti-making act; and a communication device (52) coupled to the electronics and adapted to communicate to one or more entities that a graffiti-making act has been detected (Fig. 5).

9) Regarding claims 42 and 46, Nesbitt met all of the claimed subject matter as in claim 40, plus the consideration of claim 4/24, including:

--the claimed wherein said one or more sensors (13) including one or more sonic sensors (16) adapted to sense a sound spectrum pattern of the graffiti-making act and transmit a signal representative of the sound spectrum pattern of the graffiti-making act, and said electronics adapted to process the signal to determine if the sound spectrum pattern represents a graffiti-making act (col. 4, line 48 to col. 5, line 21 and col. 6, lines 37-67).

10) Regarding claims 54-55 and 57, Nesbitt met all of the claimed subject matter as in claim 40, plus the consideration of claims 30-31 and 33, respectively.

11) Regarding claim 61, Nesbitt met all of the claimed subject matter as in claim 40, including:

--the claimed wherein said one or more sensors are adapted to communicate with said base unit through wired means (Fig. 5).

12) Regarding claim 62, Nesbitt met all of the claimed subject matter as in claim 40, including:

--the claimed wherein said one or more sensors integral with said base unit (Fig. 5 whereby the sensors and base unit are housed within structure of the vehicle housing so that the vehicle housing constitute the housing of the whole system/device with the sensors and base unit being integral within this housing).

13) Regarding claim 63, Nesbitt met all of the claimed subject matter as in claim 40, plus the consideration of claim 38.

14) Regarding claim 65, Nesbitt met all of the claimed subject matter as in claim 40, including:

--the claimed wherein said one or more sensor are one or more sonic sensors adapted to sense sound frequencies or a sound frequency that is the same as or similar to that of the sound of one or more specific graffiti-making acts (col. 5, lines 2-13).

15) Regarding claim 71, Nesbitt met all of the claimed subject matter as in claim 40, plus the consideration of claim 14.

16) Regarding claim 72, Nesbitt met all of the claimed subject matter as in the consideration of claim 40.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5, 8-13, 29, 32, 34, 37, 51-53, 56, 58, 60, 64 and 68-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nesbitt.

Art Unit: 2632

1) Regarding claim 5, Nesbitt met all of the claimed subject matter as in claim 1, whereby:

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention that the abrasive instrument that causes scratching on surfaces such as metal and glass on a property such as car in Nesbitt includes a member from the group consisting of a stone, a gem, a screwdriver, and a glass cutter, one or more of which have been known to be used to scratch a car surface during vandalism of a car.

2) Regarding claims 8-13, Nesbitt met all of the claimed subject matter as in claim 1, whereby:

Nesbitt discloses the detection of scratching sounds characterized by a distinct, narrow frequency signal using time and frequency spectrum analysis and digital processing in the presence of noise and volume concerns (col. 4, line 48 to col. 5, line 21 and col. 6, lines 37-67). It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include in Nesbitt sound focusing means known in the art such as a member selected from phase arrays, reflectors and lenses for focusing the graffiti-making sounds at the protected site for improved amplitude and detection while providing de-selection of other similar sounds including baffling sound that may effect a false alarm; and filtering to include the time and frequency spectral characteristics of interest while excluding others, wherein such filtering can be implemented using conventional filtering techniques from the group consisting of duration and time coding of the sound, digital code quantization, digitized algorithm analysis, and Fourier Transform analysis.

Art Unit: 2632

2) Regarding claim 29, Nesbitt met all of the claimed subject matter as in claim 18, whereby:

Nesbitt discloses the detection of graffiti-making act by way of specific detection and identification of scratching sounds characterized by a distinct, narrow frequency signal from the sensor using time and frequency spectrum analysis and digital processing in the presence of noise and volume concerns (col. 4, line 48 to col. 5, line 21 and col. 6, lines 37-67). It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to implement such detection in Nesbitt using specific processing steps of amplifying a signal from the sensor to a distinguishable level, combining the signal with a predetermined signature signal, reducing signal noise, and determining whether the resulting signal includes a spectrum pattern matching a predetermined spectrum pattern of one or more graffiti-making acts for a predetermined period of time.

3) Regarding claims 32 and 34, Nesbitt met all of the claimed subject matter as in claim 18, whereby:

Nesbitt discloses the detection of graffiti-making act to activate radio 52 to communicate a radio signal to remote station 60 which can then relay the signal to station and portable receivers, and pagers 73 of users including police, authority personnel, security personnel and the like (col. 6, lines 12-24).

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include in such communication in Nesbitt communication to an owner of a property where the graffiti-making act took place as a specific authority personnel since the owner of the property is an authorized entity of the property, and to communicate by dialing one or more

Art Unit: 2632

predetermined phone numbers to reach the pagers directly as an alternative to reaching the pagers through the base station relay.

4) Regarding claim 37, Nesbitt met all of the claimed subject matter as in claim 18, whereby:

While Nesbitt discloses a configuration in which said one or more sensors communicate with base unit 50 through wired connections (Fig. 5) and detecting a graffiti-making act includes transmitting a signal representative of the graffiti-making act to the base unit for processing of the signal (Fig. 5), it would have been obvious to one of ordinary skill in the art at the time of the claimed invention that such wired connection can alternatively be implemented using a wireless connection to reduce wire-clutter at the protected site.

5) Regarding claim 51, Nesbitt met all of the claimed subject matter as in claim 40, plus the obviousness consideration of claim 29.

6) Regarding claims 52-53, Nesbitt made obvious all of the claimed subject matter as in claim 51, wherein:

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to implement the time domain characterization mechanism in a system as taught by Nesbitt that uses interface circuit 49 and processing computer 50 (which is inherently or obviously microprocessor-based) using known time duration/domain processing elements including a charge pump and quantitative characterization device such as a microprocessor to determine the graffiti-making act signal characteristics.

7) Regarding claims 56 and 58, Nesbitt met all of the claimed subject matter as in claim 40, plus the obviousness consideration of claims 32 and 34, respectively.

8) Regarding claim 60, Nesbitt met all of the claimed subject matter as in claim 40, plus the obviousness consideration of claim 37.

9) Regarding claim 64, Nesbitt met all of the claimed subject matter as in claim 40, whereby:

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention that in a system such as taught by Nesbitt in which specific frequency spectrum characteristics from the one or more sonic sensors are being processed to identify particular graffiti-making acts, such one or more sonic sensors can be implemented by specific narrow frequency sonic sensors having sensitivity at the anticipated frequencies of interest, or sonic sensors adapted to sense a broad range of sound frequencies followed by specific frequency filtering/extracting, whereby the latter can be chosen based on factors such as cost or availability of parts at the time of implementation.

10) Regarding claim 68, Nesbitt met all of the claimed subject matter as in claim 40, plus the obviousness consideration of claims 7-13 and 29, whereby:

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention that with one or more of such amplification, focusing and processing of sonic signals in Nesbitt that the one or more sonic sensors are adapted to sense the sound of graffiti-making act up to a distance of 400 feet or other sensing range as desired.

11) Regarding claim 69, Nesbitt met all of the claimed subject matter as in claim 40, wherein:

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to implement the radio signal from the sonic sensor to the remote station in Nesbitt using a spread spectrum signal well known in the art for its noise immunity benefits.

12) Regarding claim 70, Nesbitt met all of the claimed subject matter as in claim 40, plus the obviousness consideration of claim 13.

7. Claims 6 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nesbitt in view of Nicollini (US pat. #5,130,666).

1) Regarding claim 6, Nesbitt met all of the claimed subject matter as in claim 1, whereby:

Nesbitt discloses the sonic sensor in the form of a microphone while Nicollini teaches that microphones come in different specific types in the art including electret, dynamic, piezoelectric and carbon microphones (col. 1, lines 8-14). It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to implement the unspecified microphone of Nesbitt with a specific microphone from the list of known microphones as indicated by Nicollini.

2) Regarding claim 67, Nesbitt met all of the claimed subject matter as in claim 40, plus the obviousness consideration of claim 6 in view of Nicollini.

8. Claims 36 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nesbitt in view of Gray et al. (US pat. #4,651,157).

1) Regarding claim 36, Nesbitt met all of the claimed subject matter as in claim 18, including:

a) the claimed detecting a graffiti-making act using one or more sensors 13 and a base unit 50 powered by a battery (inherent in Fig. 5 whereby the system is onboard a vehicle in Fig. 5); while:

b) Gray et al. teaches the known inclusion of communicating to one or more entities that the battery is low and needs to be replaced in a property tampering detection and reporting system (col. 3, lines 29-39 and col. 6, lines 44-50). In view of the teachings of Nesbitt and Gray et al., it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include a low-battery reporting communication feature as taught by Gray et al. in a graffiti-making act detection and reporting system such as taught by Nesbitt in the absence of users at the monitored site to prevent the site from being left unprotected as a result of insufficient operating battery power.

2) Regarding claim 59, Nesbitt met all of the claimed subject matter as in claim 40, plus the obviousness consideration of claim 36 in view of Gray et al.

9. Claims 1-2, 15-18, 20-21, 25-27, 39-40, 42-43, 47-48, 50 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woods (US pat. #5,528,220) in view of Nesbitt and Milholland (US pat. #3,298,518).

1) Regarding claims 1-2:

Woods discloses an anti-graffiti apparatus comprising sensors (18) for the detection of a graffiti-making act that includes writing, drawing and spraying by spray paint in order to activate a sprinkler system to spray a substance on the graffiti site as well as the perpetrator (col. 1, lines 7-23; col. 2, line 46 to col. 3, line 44 and Fig. 5) whereby the detection is by motion sensing of a person adjacent a site where graffiti is likely to occur (Abstract).

Nesbitt discloses a similar anti-vandalism system whereby vandalism or defacing of surfaces of a protected site including through scratching and damaging are sonically detected and an alarm is initiated indicating that the vandalism act took place (Abstract; col. 1, lines 7-10 and 57-67; col. 2, lines 1-37; col. 3, lines 19-23 and col. 6, lines 55-67).

Milholland discloses the known sonic detection of the spraying noise of a spray can by specifically identifying the sonic characteristics of the spray can spraying noise (Fig. 1 and col. 1, lines 52-70).

In view of the teachings by Woods, Nesbitt and Milholland, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include an alarm initiation such as taught by Nesbitt in a graffiti detection and response system such as taught by Woods indicating that the graffiti-making act took place so that police or other security personnel can take proper punitive/security action, and to include a spray can spraying noise sonic detection of Milholland in Woods as an additional, more definitive graffiti-making act detection involving the spraying from a spray can than merely detecting the motion of a person in the protected site since person-presence does not necessarily lead to a graffiti-making act.

2) Regarding claims 15-16, Woods, Nesbitt and Milholland made obvious all of the claimed subject matter as in claim 1, including:

--the claimed further including confirming that a graffiti-making act took place with one or more additional sensors consisting a motion detector (18 of Woods).

3) Regarding claim 17, Woods, Nesbitt and Milholland made obvious all of the claimed subject matter as in the consideration of claims 1-2.

Art Unit: 2632

4) Regarding claims 18 and 20-21, Woods, Nesbitt and Milholland made obvious all of the claimed subject matter as in the consideration of claims 1-2, wherein:

Milholland discloses the detection of spraying of spray can sounds by detection of a sonic disturbance of particular frequency and amplitude characteristics (col. 1, lines 52-72) using amplifier and filter means (col. 3, lines 3-14). It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to implement such detection of sonic disturbance of particular frequency and amplitude characteristics using electronic spectral analysis of sound spectrum pattern associated with the spraying of the spray can in Woods, Nesbitt and Milholland.

5) Regarding claims 25-26, Woods, Nesbitt and Milholland made obvious all of the claimed subject matter as in claim 18, plus the consideration of claim 16, wherein:

--the passive infrared motion sensor 18 of Woods meets the claimed body heat detector.

6) Regarding claim 27, Woods, Nesbitt and Milholland made obvious all of the claimed subject matter as in claim 18, plus the consideration of claim 15, wherein:

--the sonic detector and motion sensor confirm each other in the graffiti-making act detection, and therefore the sonic detector also provides the confirming role.

7) Regarding claim 39, Woods, Nesbitt and Milholland made obvious all of the claimed subject matter as in claim 18, plus the consideration of claim 1 over Nesbitt alone above, whereby:

Woods, Nesbitt and Milholland teaches detection of a graffiti-making act by processing the sounds from a microphone resulting from spraying of a spray can when spraying paint during the graffiti-making act, while Nesbitt teaches a graffiti-making act includes scratching of a

Art Unit: 2632

surface and its detection involves processing the scratching sounds from a microphone. It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include both detection and processing of sounds associated with paint-spraying and scratching type graffiti-making acts in Woods, Nesbitt and Milholland so that either type of graffiti-making act can be detected and reported as intended (i.e. not omitted), using a microphone as a single sensor to prevent unnecessary redundant use of components to keep system cost down.

8) Regarding claims 40 and 42, Woods, Nesbitt and Milholland made obvious all of the claimed subject matter as in the consideration of claim 20, including:

Nesbitt discloses the claimed configuration of having base unit (50) including electronics adapted to receive signal from the one or more sensors to process the signal and determine whether the signal represents a graffiti-making act; and a communication device (52) coupled to the electronics and adapted to communicate to one or more entities that a graffiti-making act has been detected (Fig. 5).

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to implement the sound sensing and graffiti-making act detecting in Woods, Nesbitt and Milholland using a specific separate sensor and processing base station arrangement taught by Nesbitt without changing the intended purpose of the invention or unexpected results.

9) Regarding claim 43, Woods, Nesbitt and Milholland made obvious all of the claimed subject matter as in claim 42, plus the consideration of claim 21.

10) Regarding claims 47-48, Woods, Nesbitt and Milholland made obvious all of the claimed subject matter as in claim 40, plus the consideration of claims 25-26, respectively.

11) Regarding claim 50, Woods, Nesbitt and Milholland made obvious all of the claimed subject matter as in claim 40, plus the consideration of claim 27.

12) Regarding claim 66, Woods, Nesbitt and Milholland made obvious all of the claimed subject matter as in claim 40, plus the consideration of claim 39.

10. Claims 1, 3, 18, 23, 40, 42 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woods in view of Nesbitt and Webster (US pat. #5,095,510).

1) Regarding claims 1 and 3:

Woods discloses an anti-graffiti apparatus comprising sensors (18) for the detection of a graffiti-making act that includes writing, drawing and other surface-defacing (col. 1, lines 14-28) in order to activate a sprinkler system to spray a substance on the graffiti site as well as the perpetrator (col. 1, lines 7-23; col. 2, line 46 to col. 3, line 44 and Fig. 5) whereby the detection is by motion sensing of a person adjacent a site where graffiti is likely to occur (Abstract).

Nesbitt discloses a similar anti-vandalism system whereby vandalism or defacing of surfaces of a protected site including through scratching and damaging are sonically detected and an alarm is initiated indicating that the vandalism act took place (Abstract; col. 1, lines 7-10 and 57-67; col. 2, lines 1-37; col. 3, lines 19-23 and col. 6, lines 55-67).

Webster discloses the known sonic detection of sound made by writing with a pen or other writing instruments on a surface (col. 3, line 51 to col. 4, line 26).

In view of the teachings by Woods, Nesbitt and Webster, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include an alarm initiation such as taught by Nesbitt in a graffiti detection and response system such as taught by Woods indicating that the graffiti-making act took place so that police or other security personnel can

Art Unit: 2632

take proper action, and to include a pen-writing act sonic detection of Webster associated with graffiti made by writing/drawing with a pen such as a felt-marker pen in Woods as a more definitive graffiti-making act detection involving the writing/drawing with a pen such as a felt-marker pen than merely detecting the motion of a person in the protected site since person-presence does not necessarily lead to a graffiti-making act.

2) Regarding claims 18 & 23, Woods, Nesbitt and Webster made obvious all of the claimed subject matter as in the consideration of claims 1 & 3, wherein:

Webster discloses the detection of writing-generated sonic signals can by detection of particular frequencies, bandwidth, dynamic range and duration characteristics (col. 1, lines 52-72) using amplifier and filter means (col. 3, lines 3-14). It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to implement such detection of sonic disturbance of particular frequency and amplitude characteristics using electronic spectral analysis of sound spectrum pattern associated the spraying of the spray can in Woods, Nesbitt and Webster.

3) Regarding claims 40, 42 and 45, Woods, Nesbitt and Webster made obvious all of the claimed subject matter as in the consideration of claim 23, including:

Nesbitt discloses the claimed configuration of having base unit (50) including electronics adapted to receive signal from the one or more sensors to process the signal and determine whether the signal represents a graffiti-making act; and a communication device (52) coupled to the electronics and adapted to communicate to one or more entities that a graffiti-making act has been detected (Fig. 5).

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to implement the sound sensing and graffiti-making act detecting in Woods, Nesbitt and Webster using a specific separate sensor and processing base station arrangement taught by Nesbitt without changing the intended purpose of the invention or unexpected results.

11. Claims 1, 18-19, 28, 40-41 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woods in view of Nesbitt and Schatzmann et al. (US pat. #5,832,411).

1) Regarding claims 1 and 19:

Woods discloses an anti-graffiti apparatus comprising sensors (18) for the detection of a graffiti-making act that includes writing, drawing and spraying by spray paint in order to activate a response system by way of a sprinkler system to spray a substance on the graffiti site as well as the perpetrator (col. 1, lines 7-23; col. 2, line 46 to col. 3, line 44 and Fig. 5) whereby the detection is by motion sensing of a person adjacent a site where graffiti is likely to occur (Abstract).

Nesbitt discloses a similar anti-vandalism system whereby vandalism or defacing of surfaces of a protected site including through scratching and damaging are sonically detected and an alarm is initiated indicating that the vandalism act took place (Abstract; col. 1, lines 7-10 and 57-67; col. 2, lines 1-37; col. 3, lines 19-23 and col. 6, lines 55-67).

Schatzmann et al. discloses the known detection of spray paint presence by way of sensing an odor spectrum pattern of the sprayed paint with an olfactory sensor (characteristic chemical/composition presence detection of spray paint in the atmosphere/air at a site of interest according to Abstract; col. 3, lines 1-17; col. 4, lines 36-47; col. 5, lines 1-16; col. 10, lines 40-57; col. 11, lines 14-48, which inherently makes the detector an olfactory sensor).

In view of the teachings by Woods, Nesbitt and Schatzmann et al., it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include an alarm initiation such as taught by Nesbitt in a graffiti detection and response system such as taught by Woods indicating that the graffiti-making act took place so that police or other security personnel can take proper action, and to include a spray paint presence detection by way of spray paint odor sensing of Schatzman et al. associated with graffiti made by paint spraying in Woods as a more definitive graffiti-making act detection than merely detecting the motion of a person in the protected site since person-presence does not necessarily lead to a graffiti-making act.

2) Regarding claim 18, Woods, Nesbitt and Schatzmann et al. made obvious all of the claimed subject matter as in the consideration of claim 1.

3) Regarding claim 28, Woods, Nesbitt and Schatzmann et al. made obvious all of the claimed subject matter as in claim 18, plus the consideration of claim 19, wherein:

--the olfactory detector and motion sensor confirm each other in the graffiti-making act detection, and therefore the olfactory detector also provides the confirming role.

4) Regarding claims 40-41, Woods, Nesbitt and Schatzmann et al. made obvious all of the claimed subject matter as in the consideration of claims 19, including:

Nesbitt discloses the claimed configuration of having base unit (50) including electronics adapted to receive signal from the one or more sensors to process the signal and determine whether the signal represents a graffiti-making act; and a communication device (52) coupled to the electronics and adapted to communicate to one or more entities that a graffiti-making act has been detected (Fig. 5).

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to implement the sound sensing and graffiti-making act detecting in Woods, Nesbitt and Schatzmann et al. using a specific separate sensor and processing base station arrangement taught by Nesbitt without changing the intended purpose of the invention or unexpected results.

5) Regarding claim 49, Woods, Nesbitt and Schatzmann et al. made obvious all of the claimed subject matter as in claim 40, plus the consideration of claim 28.

Double Patenting

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 1-72 are rejected under the judicially created doctrine of double patenting over claims 81 of U. S. Patent No. 6,288,643 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: current claims 1-72 are broader versions of, and fully met by patented claims 1-81.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application

Art Unit: 2632

which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968).

See also MPEP § 804.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Wolf, US 5,809,997

--A known sonic/ultrasonic sensing of aerosol spray (see disclosure regarding sonic sensor elements 425 and 435 of Fig. 8).

2) Schlemm, US 6,385,558

--Known use of sonic sensing of leaking air and odor sensing of chemical presence (Abstract).

3) Owens, US 4,054,867

--A similar sonic detection of cutting, scoring or chipping of a surface (Abstract).

4) Rogers et al., US 4,905,897

--A known detection of spraying sounds (Abstract).

5) Niemoller, German Patent No. 4304619A1 (translation)

--A known display case with anti-graffiti coating, vandalism detection and responsive alarm generation. (see translation on page 5).

6) Kumano, Japanese Patent Publication No. JP404140655A (translation)

--A known paint odor sensor.

7) Yamamoto et al., US 3,831,561

Art Unit: 2632


--A known sonic sensor for leaking pressurized air.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin C. Lee whose telephone number is (571) 272-2963.

The examiner can normally be reached on Mon -Fri 11:00Am-7:30Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Benjamin C. Lee
Primary Examiner
Art Unit 2632

B.L.